Why Aren't There More African-American Physicians? A Qualitative Study and Exploratory Inquiry of African-American Students' Perspectives on Careers in Medicine

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Purpose: African Americans comprise 13% of Americans but only 4% of U.S. physicians. The reasons for this disparity are unclear. The purpose of this study was to identify African-American high-school student perspectives on barriers to African Americans pursuing careers in medicine.

Method: Focus group interviews (consisting of 15 questions) were conducted of African-American high-school juniors attending a Milwaukee public high school in which 89% of students are African Americans. The two focus groups were conducted in 2006, transcribed and analyzed using grounded theory.

Results: The 12 students interviewed in two focus groups had a mean age of 17 years; 41% of students' parents were high-school graduates. Major barriers to becoming a physician cited by students included financial constraints, lack of knowledge about medicine, little/no encouragement at home or in school, negative peer views on excelling academically, lack of African-American role models in the community and on TV, racism in medicine, and easier and more appealing alternatives for making money. Students stated that increasing the number of African-American physicians would enhance patient–physician communication and relationships, and more African Americans would become physicians if there were greater exposure to medicine in schools, more guidance at a younger age and more role models.

Conclusion: Financial constraints, insufficient exposure to medicine as a career, little encouragement at home and in schools, lack of role models, and negative peer pressure may contribute to racial disparities in the physician workforce for African Americans. Exposure at a young age to role models and to medicine as a profession might increase the number of African American physicians.

Key words: African Americans ■ race/ethnicity ■ minority health ■ education

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INTRODUCTION

African Americans currently make up nearly 13% of the U.S. population but constitute only 4.4% of all U.S. physicians and surgeons, and are therefore considered an underrepresented minority (URM) in medicine.[1,2] The proportion of African-American physicians in the United States has changed very little. Despite affirmative action programs instituted by medical schools in the 1960s and 1970s, African Americans comprised only 3.1% of all U.S. physicians in 1980.[3] In 1990, Project 3000 by 2000, an initiative of the Association of American Medical Colleges, was launched to increase the number of URMs in medicine, as affirmative action alone had not been successful in achieving diversity goals.[4] However, the number of underrepresented minorities that matriculated in U.S. medical schools was only 1,700 in the year 2000, short of the project's goal of 3000.[5] The number of URMs that matriculated in U.S. medical schools peaked in 1994, but these numbers have since stagnated.[6]

The proportion of racial/ethnic minorities in the United States is increasing dramatically, but minority representation in medical schools is not advancing at a comparable pace.[7] It has been estimated that an appropriate and proportionate ratio of African-American physicians to the overall population would be 218 per 100,000, whereas the ratio presently stands at 73 per 100,000.[8,9]

Diversity in the physician workforce is essential for high-quality medical education and access to healthcare for the underserved.[10] Although initiatives to increase the number of African-American physicians have been implemented, they remain relatively ineffective, as numbers continue to stagnate.[11] The aim of our study, therefore, was to identify the barriers that continue to prevent African-American students from pursuing careers as physicians.

METHODS

Research Design

Two focus groups were conducted of African-American high-school students in an inner-city public high school. Focus group methodology was chosen because it promotes interaction among participants as well as effectively assesses attitudes, beliefs and motivations.[12] Focus groups rely on interpersonal interaction as part of a method in which participants are encouraged to talk to one another, ask each other questions, and comment on each others' experiences and points of view.

Study Population and IRB Approval

The study participants were students from Harold S. Vincent High School, a public high school located in a region of Milwaukee, WI, in which the median household income is $42,500.[13] The school's student body consists of 89% African-American students. All participants were enrolled in the same 11th-grade English class. Students were eligible for the study if they were African American, resided in the city of Milwaukee and were 15–18 years old. Informed consent was obtained from each participant, and approval from the institutional review board (IRB) was obtained for this study from the Children's Hospital of Wisconsin and from the Milwaukee public schools district.

Because the ideal size of a focus group is 4–8 participants,[12] we recruited six students per focus group, for a total of 12 participants. All focus groups were held in classrooms at the Harold S. Vincent High School during class time previously set aside by the assistant principal and teacher. Each focus group averaged 45–50 minutes in duration. We explained to students that their participation was voluntary and that no personal identifiers would be included in subsequent analyses or publications. In addition, we stressed that students' responses during the discussion were confidential, and all audiotapes and data would be accessible only to study personnel.

Focus Group Questions

Fifteen questions and 30 prompts sequentially were asked in each focus group by two research assistants (Table 1). The focus group questions were developed to identify students' perspectives on critical factors affecting the decision to pursue a career in medicine and on what can be done to increase the number of African-American doctors. The questions were derived from a review of the literature on medical and dental workforce issues, the authors' experiences mentoring and caring for adolescent minorities, and the authors' conceptual framework for potential barriers to careers in medicine for minorities. The focus group moderator's guide therefore included questions addressing plans for higher education, career goals, role models, perceptions of physicians and medical students, attitudes toward diversity within the medical field, factors affecting the decision to pursue a career in medicine, and what can be done to increase the number of African-American doctors (Table 1).

Data Analysis

Both focus group sessions were audiotaped and transcribed by an administrative assistant unaware of the study objective. Each audiotape was reviewed for accuracy 4–6 times with its accompanying transcript by one author (VR). The two authors (VR and GF) and a third volunteer independently reviewed the final transcripts. Transcripts were analyzed by identifying common themes that emerged in responses about specific topics. Highlighting and margin coding of recurring and relevant themes were used to examine the data. Each reviewer coded the transcripts independently and met to discuss their individual analyses and resolve any differences by consensus. Themes in the transcripts of both focus groups were identified and recorded.

Table 1. Questions asked in focus groups of African-American high-school students

1) Do you want to become a doctor?
2) If yes, why? If no, why not?
3) Has anyone ever encouraged you to or discouraged you from becoming a doctor? If so, why do you think he/she did it?
4) Do you know any African-American doctors?
5) Currently, African Americans only make up 4% of all doctors but nearly 14% of the country's population. Do you think it's important for there to be more African-American doctors?
6) What do you think should be done to increase the number of African-American doctors?
7) What would make you more likely to become a doctor?
8) Are you planning on applying to/attending college?
9) If so, are you planning on applying for any type of scholarship—financial and/or merit based?
10) What do you think doctors are like?
11) What do you have to do to become a doctor?
12) What do you think medical students are like?
13) Who do you look up to most in your life? Describe him/her to me.
14) Does it worry you that you'll be less popular if you get the kind of good grades needed to get into college and medical school?
15) Is there anything else that you'd like to tell me?

Because the analysis of focus group data is a qualitative process, it is not appropriate to give percentages or frequencies when reporting themes or responses,[12] hence such quantitative data will not be provided herein.

The qualitative analysis of themes was performed using grounded theory (also known as the constant comparative method), a systematic methodology in which a new theory is formulated from the data, and existing theory is merged with new concepts as data are further analyzed.[14] A taxonomy of themes was subsequently created to organize the concepts into two primary domains: 1) barriers to pursuing a career in medicine, and 2) attitudes and recommendations regarding educating more African-American physicians and increasing diversity in the medical field.

RESULTS

Sociodemographics of Focus Group Participants

The 12 students interviewed in two focus groups had a mean age of 17 years; 66% were female (Table 2). Forty-one percent of students' parents were high-school graduates. All students were African American and in their junior year of high-school.

Barriers to Pursuing a Career as a Physician

Students identified multiple impediments to pursuing a career as a physician. Table 3 depicts the taxonomy summarizing the 11 categories for the 27 barriers reported by students.

Financial challenges. The cost of education for college and medical school was an overwhelming barrier for students, and they felt that they would not be able to afford such high tuition for medical school (Table 4). Although most students were aware of options to take out loans and apply for scholarships in order to finance medical school, they perceived loans and scholarships to be of little help overall. As one student put it:

I know it's like certain Ivy League schools that people wants to go to, like I want to go to Northwestern, and their tuition is like $43,000 a year. So some people might not be able to find a way to afford that even with loans and scholarships. And that's before medical school.

Students also believed that obtaining the kind of grades necessary to receive scholarships was difficult, making financing higher education seem even more daunting. In addition, the students believe that physicians often end up in debt and spend much of their career paying off their loans, as one student explained:

Finances play a big role in a lot of black people going to college. If your family don't have that kind of money and you're not getting the best grades, or you're not going to a real good school so you can't get no scholarships and stuff, you not going to college, cause how you gonna pay for it? As long as you in debt, your family can't help you and then you trying to pay this debt off for the rest of your life.

Time commitment. Students perceived the path to becoming a physician as being too long, requiring far too many years of education and subsequent training. "I mean being a doctor, that's a lot of school. You need the drive, I've got a drive, but I ain't got a drive to stay in school my whole life," a female student explained.

Furthermore, students viewed a career as a physician to be defined by long hours and perpetually busy schedules, which further discouraged them from pursuing a career in medicine. As one male student put it, "I don't want to be no doctor, it's too much work. Y'all got a busy schedule. I'm not trying to have no busy schedule."

Stress/difficulty. Stress caused by the fear of patient morbidity/mortality and stress caused by the difficulty of premedical coursework and medical school admissions requirements were cited as impediments to pursuing a career as a physician (Table 4).

Table 2. Selected sociodemographic characteristics of focus group students

Characteristic	Mean or Proportion
Mean Student's Age (Years)	17
Female Gender*	66%
Mother's Highest Level of Educational Attainment*†	
Not a high-school graduate	8%
High-school graduate	41%
College degree	50%
Father's Highest Level of Educational Attainment*†	
Not a high-school graduate	8%
High-school graduate	41%
College degree	16%
Don't know	33%

* Proportions sum to <100% due to rounding; † By student report

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Limited opportunities and exposure to medicine. Very few students knew any African-American physicians personally. The students also cited the lack of emphasis on college admissions, grades and advanced coursework in their high school as compared to suburban schools:

I think we really pay the price. We go to Vincent. You go to them suburban schools, they really focus in on the grades. Like these classes we got, they probably took freshman year. They really focus on education and they really teach them about college. They tell them like go to college, all in detail, like the main stuff, but ... they be so far ahead of us.

Lack of family support. Students reported that in their households and family there were lower or no expectations of becoming a physician, and limited long-term professional planning and discussion of the future (Table 4). One male student stated, "It's not that [I'm not interested], but nobody else is really trying to encourage me to go to medical school."

Lack of peer support. Students stated that pursuing academic excellence puts them at serious risk of being socially ostracized or being accused of "acting white" by peers (Table 4). Moreover, students described that among their peer group, "easy money" (including drug dealing, professional basketball and being a rapper) is a more popular and appealing alternative than higher education, given the perceived minimal effort and maximal benefits. "For a black man, we think in order to make it out of the projects, or the hood, or whatever, you gotta be a rapper or have a jump shot," one male student explained.

Perceptions of physicians. There was consensus that physicians were typically white and male: "I picture a tall, white man in a white coat."

Lack of knowledge about medicine. There was a lack of knowledge among students about several aspects of a career as a physician (Table 4). Some students expressed confusion about the difference between being a nurse and a physician, while others could not distinguish between certain medical and nonmedical fields (i.e., psychiatry and psychology).

Other students believed that physicians must be extremely strong in math skills, many doctors illegally distribute medica-

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Table 3. Taxonomy of barriers to pursuing a career in medicine

Financial Challenges
- College tuition too expensive
- Medical school tuition too expensive
- Students perceive loans/scholarships to be of little financial aid
- Getting good enough grades to obtain scholarships is too difficult
- Students perceive that most physicians end up in debt

Time Commitment
- Path to becoming a physician requires too many years of education/residency
- Long hours/too busy of a schedule when practicing as a physician

Stress/Difficulty
- Stress caused by fear of patient morbidity/ mortality as a physician
- Stress caused by difficulty of premedical coursework and medical school admissions requirements

Limited Opportunities and Exposure to Medicine
- Lack of African-American physician role models in the community and on television
- Lack of emphasis on college admissions, grades, and advanced coursework in inner-city high schools

Lack of Family Support
- Lower or no expectations at home of child becoming physician
- Limited long-term professional planning and discussion of future in general

Lack of Peer Support
- Pursuing academic excellence runs risk of being accused of "acting white" by peers
- Concept of easy money is made more appealing by peers (drug dealing, basketball playing, rapping)

Perceptions of Physicians
- Typically white
- Typically male

Lack of Knowledge about Medicine
- Confusion about the difference between being a nurse and doctor
- Confusion between specialties (i.e., psychiatry versus psychology) and the path to these professions
- Medical doctors must be strong in math skills
- Misperceptions driven by television dramas

Lack of Interest
- Lack of interest in science
- More interest in other professions (i.e., nurse, lawyer, psychologist)

Negative Normative Cultural Values and Traditions
- Lack of hope/few goals in families
- Cyclic patterns of social/economic depression
- High rates of teenage pregnancies

Perceived Racism in the Medical Field and Healthcare Institutions
- Fear of racial remarks made by other white physicians and patients

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tion and facilitate euthanasia, and male doctors often sexually harass their female patients. These misconceptions seem to be driven, at least in part, by television dramas which portray such situations, which students seemed to view as reality.

Lack of interest. There also was a general lack of interest in science and medicine among students, along with greater interest in other professions (e.g., nursing, law and psychology).

Negative normative cultural values and traditions. Students cited the lack of hope and goals, cyclic patterns of social/economic depression, and high rates of teenage pregnancies among African Americans as obstacles in pursuing careers in medicine (Table 4). As one female student explained, "My momma had her first child at 15, and my grandmomma got married at 14, and it's like I mean if you don't ever break the cycle … it's going to be the same."

Perceived racism in medical field and healthcare institutions. Students stated that they were deterred from pursuing a medical career by their fear of racist remarks being made by white physicians and white patients (Table 4). As one female student explained:

The only thing, being an African American, is I couldn't be in the medical field because [of] the little racial comments and stuff that might come by, even if it's from one of my coworkers or somebody that just walked in the hospital needing help. I couldn't take it.

In addition, students expressed that if they became a physician, they ultimately would face rejection from their African-American peers as well as their white counterparts. As two students related:

Male student: "Coming up, it's like you're not going to be accepted by black people and when it gets to that point… ."

Female student: "They gonna say you acting white."

Male student: "Yeah, and then you're going to be rejected by a lot of white people because of your race."

Female student: "It's like, you gonna be rejected by everybody."

Students' views on importance of increasing the number of African-American physicians. Students were generally in agreement that having an African-American physician leads to an enhanced patient–physician relationship (Table 5). Students also reported feeling that African-American physicians are more empathic than white physicians. A female student said,

I mean, a white doctor can look at a black girl and say, 'she is really overweight' and a black doctor would be like "okay, you a little bit overweight, you can lose a little bit."

In addition, students believed that cultural similarities created more comfort between the patient and physician. A female student stated:

Nothing against like other races or anything, but it's like you kind of feel like you can relate to [African-American physicians] more, like they know how you going to act. You know, everybody deal with birth differently, you know, like black people have a tendency to go overboard with it, you know ,screaming and all that stuff. So like, it's like when your family is in the room and then you have a black doctor in the room you kind of feel like everyone is family, so you can just go crazy.

Students generally expressed that there were shared patient–physician perceptions and perspectives regarding health and health outcomes between African American patients and physicians (Tables 4 and 5).

How increased opportunities/exposure to medicine might be helpful in increasing the number of African-American physicians. Students expressed that exposure to more African-American role models may help encourage more students to pursue careers in medicine (Tables 4 and 5). As one female student put it, "If you're surrounded by people that are going to college and becoming doctors, maybe it'll change the outcomes."

In addition, students felt that increased guidance in schools regarding college and medical school could clarify and publicize a career in medicine and, therefore, attract more students to the profession. As one student said, "I'm sure there's a lot of students in here who would want to be doctors, it's just we don't have classes to tell you what you're getting yourself into and stuff."

DISCUSSION

Financial Constraints

This is the first published study (to our knowledge) to use focus groups to identify barriers which prevent African-American students from choosing to pursue a career as a physician. The study findings indicate that the high costs of college and medical school tuitions make the path to becoming a physician seem almost prohibitive to inner-city African-American high-school students. Without means to finance such an expensive education, the students report considering other alternatives when contemplating their future career. Although students expressed an awareness of the option to apply for scholarships, they perceived them to be of little financial assistance overall and also were concerned about the difficulty of attaining merit-based scholarships. Increasing awareness of the availability of need-based scholarships and financial aid among students could make financing higher education and pursuing a career as a physician seem more feasible. Such efforts might include mandatory distribution of scholarship information or information sessions held by college or guidance counselors in the junior or senior year of high school.

Table 4. Focus group quotes on selected key issues by African-American high-school students

Financial Challenges

"They going to be poor because being in medical school you going to need a lot of money to pay for school so you just got to be livin' by what you really, really, really need."

Stress/Difficulty

"Well, basically I used to want to become a doctor but like, the stress of like losing a patient or not getting to help that person like would overtake me and that's why I chose not to become a doctor."

"Like she said, I like people, hearing about their problems, social problems. But I don't want to go to medical school, it's hard."

Lack of Family Support

"Know what I'm saying, so if you ain't got that parental push, if you weren't encouraged to be like a doctor when you're little, you just grow up in the world, just hanging out a lot of stuff, like I be doing you don't really want to snatch that doctor occupation, you wanna be out getting money like everybody else, being rappers and stuff like that. They be entertaining, they be having fun, doing what they doin' get they money, so I wanna do that."

"Well, I don't discuss them topics when I'm chilling with my kinfolk and everybody. I don't sit there talking about what you want to be when you grow up..."

Lack of Peer Support

"When there's one of you and sixty of them, everyone of them is kicking and having fun and you sitting there in the corner reading your book, that's gonna get to you."

"To tell you the truth, it's gonna be hard trying to get black people to be doctors for the simple fact you got rap, all this all that out there, that's what everybody wanna be."

Perceptions of Physicians

"I picture a tall, white man in a white coat."

Lack of Knowledge about Medicine

"What's the difference between a nurse and a doctor?"

"They give that medicine and get them out of the way, and they ain't really supposed to be doin' that, they supposed to be helpin' them but, to tell you the truth, they got a medicine that's going to hurt them."

"I think basically the only thing that kind of discourages me from actually in the medical field is math because that's like my weakness. I figure that if I'm not good at that, I'm not going to be able to make it."

Negative Normative Cultural Values and Traditions

"It's a high pregnancy and dropout rate, and if you're pregnant you can't expect go to school all the time, and [you] can't expect to become a doctor if you don't go to school."

"Sometimes like when I hear some black people talk, they be like, white people always try to be after us. Like I said, it's how your momma brought you up. Like some African Americans are still teens when they have children, they still young when they having kids so they can't give the child what they need to get further in life. How can they teach their children when they still growing up themselves? "

"I think another problem is that some African Americans—they stuck in the past. Instead of trying to move forward, they just stuck. They are trying to find ways to stay in, instead of finding a new way out."

Perceived Racism in the Medical Field and Healthcare Institutions

"Like, you know how some older white people, they still racist, yeah like they don't like blacks and stuff like I wouldn't be able to deal with them types of comments."

Why Increasing the Number of African-American Physicians Is Important—Enhanced Patient–Physician Relationship

"You know like African Americans, they big, you know how we made compared to [Caucasians] and you know they be like, they look at you and they're like you overweight."

"But a lot of white doctors don't know the situations to talk about and stuff, I feel a black doctor would."

"We can relate more. They tell you like what to do but they still understand where you coming from."

How Increased Opportunities/Exposure to Medicine Might Be Helpful in Increasing the Number of African-American Physicians

"Basically I think a lot of people before they get to college, they can't really decide what they want to do. They get to college they may be undecided, so I think in high school there should be more opportunities to help you decided what you want to do. Because if you're just finishing school, and not doing what you want, you're just gonna waste time and money."

"In elementary school, encouraging students to be doctors, like when they're younger and stuff."

"We need classes to learn more about what being a doctor's all about. Basically you're just going off of what you see on T.V. with the doctors and stuff."

Lack of Encouragement at Home and in Schools

Students described professional planning and career discussions to be minimal or nonexistent at home and in school. It has been suggested that African-American students may be more likely to develop lower expectations for themselves and consequently attain lower levels of academic excellence due to a higher risk of lacking proper domestic support, encouragement and guidance regarding professional aspirations.[15] While making significant changes in the family environment of students can be difficult, the Health Careers Opportunity Programs (HCOP), a school-based initiative of the Health Resources and Services Administration (HRSA) Bureau of Health Professions, has had impressive success in increasing diversity in the healthcare professions. The 6,000 minority students that have participated in the 132 programs nationally have an acceptance rate into health professions training that is 20% above the national average.[16] The aim of HCOP is to bring health professions schools into high schools and undergraduate programs by introducing students to minority health professionals so that they can learn about the rewards and opportunities in healthcare careers and participate in intensive academic enrichment programs that prepare them for the rigors of course work and clinical training.[16] Unfortunately, President Bush has continued to attempt to eliminate the HCOP program from the federal budget since 2002, including in the 2008 budget.[17]

In addition, students in our study were keenly aware of disparities between urban and suburban schools, especially the lack of emphasis on the importance of scholastic achievement in their high school as compared to suburban schools. Increasing opportunities for academic enrichment and guidance in inner-city schools (starting at early ages) could bolster students' self-confidence and motivation, and thereby promote greater interest in and pursuit of a career as a physician. Of note, a qualitative study of undergraduate and dental school students about the reasons behind the small number of minorities in the field of dentistry revealed that early and frequent exposure to dentistry and dentists is essential for minority students to choose dentistry as a profession.[18]

Lack of Role Models and Negative Peer Pressure

Students reported that there were few or no African-American physicians in their communities who could serve as role models. Students specifically stated that when contemplating a medical career and other professional options, they found it easier and more appealing to consider such vocations as drug dealing, rapping or professional basketball—careers that are more visible among their peer group. Furthermore, striving for academic excellence was described as incurring the risk of being socially ostracized and being accused of "acting white." Social pressures and the paucity of African-American physicians in their communities were identified as major impediments to students' pursuit of becoming a physician. These study findings suggest that mentorship programs in inner-city schools that allow students to shadow physicians and gain exposure to medicine might be useful in encouraging African-American students to consider medicine as a career. Other extracurricular activities, such as research opportunities or summer enrichment programs focusing on the healthcare professions, might also prove useful in increasing the number of African-American physicians.

LIMITATIONS

Certain study limitations should be noted. This qualitative study was limited to African-American students in their junior year attending high school in inner-city Milwaukee. The study findings, thus, may not necessarily generalize to African-American students in other urban areas or regions of the country, to those residing in rural or suburban areas, to communities that are more affluent or to older or younger high-school students. Although this is the first study (to our knowledge) to examine barriers to careers in medicine among African-American high-school students, only two focus groups of 12 students were conducted, and it would be useful to replicate this qualitative study using a greater number of focus groups held in several schools that differ by urbanicity, regional location and median family income.

Table 5. Students' perspectives on increasing the number/proportion of African-American physicians

Why Increasing the Number of African American Physicians Is Important

Enhanced patient–physician relationship:
- Cultural similarities created more comfort in patient–physician relationship
- More empathy
- Easier for patient to identify with physician
- Shared patient–physician perceptions and perspectives regarding health and health outcomes

What Can Be Done to Increase the Number of African-American Physicians

- Increase opportunities in high schools for mentoring and guidance about medical careers
- More professional guidance about medicine at an early age
- Change negative attitudes/environment at school about African Americans becoming physicians
- Change negative attitudes/environment at home/in families about African Americans becoming physicians

CONCLUSIONS

Research documents that increase the number and proportion of African-American physicians can enhance patient–physician communication and increase access to healthcare for African-American and Medicaid-covered patients.[19-21] The study findings indicate that the persistent dearth of African-American physicians might be due to several barriers that African-American high-school students confront when contemplating a career in medicine, including financial constraints, insufficient exposure to medicine in schools, lack of encouragement at home, lack of role models in the community and negative social pressures. The data suggest that greater exposure to medicine as a career in middle schools and high schools, through increased mentoring and academic and extracurricular enrichment programs, might encourage more African-American students to pursue careers in medicine.

ACKNOWLEDGEMENTS

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